

Amendments to the Specification

Please replace the paragraph beginning on page 2, line 1, with the following rewritten paragraph:

~~Further~~ Further, the toner particles obtained by the pulverization method involve a problem that their grain ~~size~~ size distribution is wide although they are classified, and accordingly, the amount of static charges varies greatly due to the scattering of the grain size when individual toner particles are ~~charges~~ charged upon image formation. Further it also involves a problem of poor fluidity since the shape of the toner particles is indefinite.

Please replace the paragraph beginning on page 4, line 19, with the following rewritten paragraph:

Therefore, in the printer using the toner described above, so-called heat-offset occurs during heat roller fixing and it is necessary to coat a releasing agent such as a silicone oil to a roller in order to prevent the heat offset. ~~For the~~ The coating of the releasing agent to the roller needs an additional coating device to bring device, which brings about a problem of increasing the cost of the printer main body.

Please replace the paragraph beginning on page 6, line 22, with the following rewritten paragraph:

In a case of using the polymer particles formed as described above for the toner, since a sufficient amount of fine wax particles is incorporated in the polymer particle, it is possible to prevent offset in the heat fixing device provided to the copying machine or the like without conducting external addition of the wax or provision of oil coating device to the copying machine, thereby ~~capabl~~ capable of improving the fixing property and the durability and also capable of forming highly fine images.

Please replace the paragraph beginning on page 8, line 1, with the following rewritten paragraph:

As the manufacturing method for the polymer resin particles according ~~to~~ to the invention, a dispersion polymerization method is adopted. The dispersion polymerization step is a step of adding a polymeric dispersant soluble to an organic solvent into the organic solvent, and adding one or more kinds of monomers which are soluble to the organic solvent with the polymer resultant therefrom being swollen but not scarcely dissolved in the organic solvent thereby forming particles. The monomer utilized for the growing reaction is soluble to the organic solvent but the polymer is insoluble to the organic solvent.

Please replace the paragraph beginning on page 10, line 23, with the following rewritten paragraph:

Then, the dispersant added into the organic solvent ~~and~~ functions as a dispersant for fine dispersion of the wax and a stabilizer for the polymer resin particle and can include, for example, specifically, polyvinyl pyrrolidone, polyvinyl alcohol, 1-hexadecanol, hydroxypropyl cellulose, hydroxypropylmethyl(ethyl) cellulose, poly(12-hydroxystearic acid), poly(styrene-*b*-dimethylsiloxane) and polyisobutylene. The polymeric dispersant added into the organic solvent is properly selected depending on the organic solvent used and the aimed polymer resin ~~particle and, particularly~~ particle. Particularly, those dispersants having high affinity and adsorbability to the surface of the polymer resin particle and having high affinity and solubility to the organic solvent are selected with a view point of mainly preventing sterical agglomeration of polymer resin particles. Further, for increasing the repulsion between the polymer resin particles to each other with a sterical view point, those having molecular chains to some extent, preferably, those having a molecular weight of 10,000 or more are selected. With the view points described above, for making the grain size uniform and the grain size distribution narrow for the polymer resin particles to be produced,

polyvinyl pyrrolidone is preferred as the polymeric dispersant. Further, plural kinds of polymeric dispersants may be used in combination. Further, the addition amount of the polymeric dispersant used is 5 parts by weight or more based on the addition amount of the monomer while this varies depending on the grain size of the polymer resin particle produced as the aimed product. When the amount is smaller, no sufficient sterical repulsion can be obtained between the polymer particles upon deposition of the polymer particle in the course of the initial polymerization and they agglomerate with each other.

Please replace the paragraph beginning on page 12, line 1, with the following rewritten paragraph:

The polymer constituting the ~~polymer-polymer~~ resin particle can include homopolymer and copolymers of styrene and derivatives thereof such as polystyrene, poly-p-chlorostyrene, polyvinyltoluene, styrene-p-chlorostyrene copolymer and styrene vinyltoluene copolymer; copolymers of styrene and acrylates such as styrene - methylacrylate copolymer, styrene - ethylacrylate copolymer, and styrene - n-butyl acrylate copolymer; copolymers of styrene and methacrylate such as styrene - methylmethacrylate copolymer, styrene - ethylmethacrylate copolymer, and styrene - n-butylmethacrylate copolymer; polynary copolymer of styrene, acrylate and methacrylate; as well as styrenic copolymers such as copolymers of styrene and other vinylic monomer, such as styrene - acrylonitrile copolymer, styrene - vinylmethyl ether copolymer, styrene - butadiene copolymer, styrene - vinyl methyl ketone copolymer, styrene - acrylonitrile - indene copolymer and styrene - maleate copolymer; polymethyl methacrylate, polybutyl methacrylate, polyvinyl acetate, polyester, polyamide, epoxy resin, polyvinyl butyral, polyacrylic acid, phenolic resin, aliphatic or cycloaliphatic hydrocarbon resin, petroleum resin and chlorinated paraffin, which may be used alone or may be used in an appropriate combination thereof. The monomer in the invention comprises a so-called

polymerizable monomer for forming the polymer described above and at least one kind of monomer is used in accordance with the kind of the polymer.

Please replace the paragraph beginning on page 12, line 27, with the following rewritten paragraph:

In the case of use as the toner, the polymer is preferably has high transparency in view of ~~th~~the application use to OHP and it is preferred that the insulation property is high in order to obtain good developed images. Further, it is necessary to have a high dynamic strength at a normal temperature and it is desirably softened by low energy and fixed to an object to be drawn. In view of the ~~foregoings~~foregoing, in a case of using the polymer resin particle in the preferred embodiment as the photographic toner, styrene series copolymers or polyester series polymers are used suitably for instance.

Please replace the paragraph beginning on page 15, line 23, with the following rewritten paragraph:

For forming the polymer of the invention, the polymer may be crosslinked by using a crosslinker to form a crosslinked polymer. As the crosslinker, usual crosslinkers may be ~~used~~ properly~~properly used~~. Specifically, it can include, for example, divinyl benzene, divinyl naphthalene, divinyl ether, divinyl sulfone, ethylene glycol di(meth)acrylate, butanediol di(meth)acrylate, trimethylolpropane ~~tri(m-th)acrylate~~tri(meth)acrylate and pentaerythritol tri(meth)acrylate.

Please add the following new paragraph before the paragraph beginning on line 4 of page 16:

The fine wax particles preferably have an average particle size of 1 μ m or less. In embodiments, a plurality of fine wax particles are incorporated in the polymer resin particle for use in the toner.

Please replace the paragraph beginning on page 16, line 17, with the following rewritten paragraph:

The wax incorporated in the polymer resin particle is selected from those having the zeta-potential at the surface of the fine particle measured in the dispersant medium used upon production opposite to the zeta-potential of the polymer resin particle incorporating the wax. This can facilitate agglomeration between fine wax particles and polymer resin particles in the initial stage of growing by attraction to each other upon deposition of the polymer resin particles in the initial stage of production process. The thus selected wax is added together with the polymeric dispersant into the organic solvent and previously dispersed finely before starting polymerization of the monomer.

Please replace the paragraph beginning on page 17, line 25, with the following rewritten paragraph:

When the pigment or the dye is dispersed into the wax, it is desirable to finely disperse the pigment or the dye by mixing and stirring and finely disperse the pigment or the dye to the heated wax thereby ~~incorporating~~ incorporating the pigment or the dye in the wax ~~to~~ to form a pigment-containing wax.

Please replace the paragraph beginning on page 23, line 2, with the following rewritten paragraph:

The result of the measurement ~~described~~ described above is shown in Fig. 2. In Fig. 2, curve A is a reference curve for measurement of wax-free resin particles in which neither endothermic reaction nor exothermic reaction was taken place. Further, curve B shows the result of measurement obtained for the measured specimen in which a small peak P1 for endothermic reaction was obtained near 90°C. The peak P1 is an endothermic peak due to melting of the fine wax particles incorporated in the polymer resin in the measured sample and it can be seen therefrom that the fine wax particles were incorporated in the polymer resin

particles. Curve C shows the result for measurement only for the wax in which a large peak P2 for endothermic reaction was obtained near 90°C, as well as in the curve B. It can be seen also from the endothermic peak P2 in the curve C that the endothermic P1 obtained for the curve B is a peak generated due to the melting of the fine wax particles incorporated in the polymer resin particle.

Please replace the paragraph beginning on page 34, line 10, with the following rewritten paragraph:

As has been described above, in the method of manufacturing the polymer resin particles for use in the toner by dispersing fine wax particles using a polymeric dispersant into an organic solvent, according to the present invention since the wax ingredient forming the fine wax particles are selected such that the surface potential of the fine wax particles dispersed in the organic solvent show the polarity opposite to the surface potential of the fine polymer particles, one or more of monomers forming the polymer is dissolved and the polymerizing reaction of the monomer is proceeded while depositing fine polymer particles to the surface of the fine wax particles upon deposition of the polymer in the organic solvent in the initial stage of the polymerizing reaction of the monomer, the fine polymer particles are attracted to the surface of the fine wax particle in the initial stage of the polymerizing reaction of the monomer and, accordingly, the fine polymer particles can be deposited in a short time and simply on the surface of the fine wax particle. Further, fine wax particl-sparticles can be incorporated sufficiently into the formed polymer particles.